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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,588	11/22/2000	Eric Alvin Johnson	A01138	3117
7590 09/22/2004				
Stephen T. Falk Rohm and Haas Company Patent Department 100 Independence Mall West Philadelphia, PA 19106-2399		EXAMINER REDDICK, MARIE L		
		ART UNIT PAPER NUMBER 1713		
DATE MAILED: 09/22/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

SC

Office Action Summary	Application No. 09/718,588	Applicant(s) JOHNSON ET AL.	
	Examiner Judy M. Reddick	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/22/00;02/22/01;05/16/01;07/19/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/22/01;07/19/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements filed 02/22/01 & 07/19/01 have been considered and scanned into the application file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) The recited "wherein the polymerizable surfactant is selected from the group of polymerizable surfactant monomers consisting of ----and allyl ammonium alkyl ether sulfate or allylammonium salts of C8-C22 carboxylic acids, allyl ammonium salts of succinate or maleate ester surfactants" per claim 3 and "one or monomers selected from the group of monomers consisting of ----- and methacrylamides, substituted methacrylamides" per claim 5 constitutes indefinite subject matter as per the use of improper Markush format. When materials recited in a claim are so related as to constitute a proper Markush group, they should be recited in the conventional manner, or in the alternative. For example, "wherein R is a material selected from the group consisting of A, B, C and D" is a proper limitation, or alternatively, "wherein R is A, B, C or D" is also proper. See M.P.E.P. § 2173.05(h).

B) The recited "mixtures of such monomers" constitutes indefinite subject matter as per it not being readily ascertainable as to if or how said objectionable phrase "such monomers" further limits the claims.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 10 & 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. "Use in" is not a statutory category of inventions. Only processes with steps are patentable.

Double Patenting

5. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

6. Claims 6-9 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 and 2 of prior U.S. Patent No. 6,693,147 B2. This is a double patenting rejection.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-5, 10 & 11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 & 2 of U.S. Patent No. 6,693,147 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the inkjet ink composition(1) and method of formulating an inkjet ink composition (2) per the claims of U.S. Patent '147 overlaps in scope with the polymeric binder (1-5) and use in the preparation of an ink composition (10-11) per the instantly claimed invention. The

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generically recited surfactant monomer per the claims of U.S. Patent '147 necessarily implies that any surfactant monomer comprising hydrophobic and hydrophilic functional groups, including the claimed surfactant monomer of U.S. 09/718,588, would have been operable within the scope of the patented claims and with a reasonable expectation of success.

9. Claims 1-11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,743,875 B2 in view of Idogawa et al (U.S. 5,965,634). The polymeric binder per the claims of U.S. '875 overlaps in scope with the polymeric binder per the claims of the instant invention. One having ordinary skill in the art would have found it obvious to modify the polymer binder of U.S. '875 by addition of a colorant as taught by Idogawa et al in similar such ink compositions and with a reasonable expectation of success. Furthermore, the interchangeability of one well known surfactant monomer for another is a matter of ordinary choice to the skilled artisan and with a reasonable expectation of success.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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12. Claims 1-11 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 11-012512(Machine Translation).

JP teaches an ink jet printing liquid obtained by emulsion polymerizing (a) 100 parts by weight of a radical-polymerizable ethylenically unsaturated monomer such as methyl methacrylate, ethyl acrylate or alpha-methyl styrene, (b) 0.1-10 parts by weight, based on total monomer, of a carboxyl-bearing monomer such as acrylic acid, (c) 1 to 15 parts by weight of a pigment in the presence of (d) a reactive surfactant comprising hydrophobic and hydrophilic groups and wherein the hydrophilic functional group comprises a polymerizable group within which is ethylenically unsaturated such as an ethylenically unsaturated amine cation, (e) 0.1-5 parts by weight of a polymerization initiator and (f) water. See the Abstract and pages 2 & 3 of JP'512.

JP'512 therefore anticipates the instantly claimed invention.

As to the introductory phrase "A method of improving the print quality of an ink composition" per claim 8 which is basically the result of combining a colorant and an emulsion polymer derived from a monomer mixture comprising an ethylenically unsaturated carboxylic acid and a reactive surfactant monomer, while JP'512, although disclosing the combination of a colorant and an emulsion polymer derived from a carboxylic acid and a reactive surfactant, does not show a specific recognition of that result, its discovery by applicant is merely tantamount to finding a new property for an old composition (In re Tomlinson, 363 F. 2d 928, 150 USPQ 623 (CCPA 1966)). When the claim recites using an old composition or structure and the "use" is directed to a result or property of that composition or structure, then the claim is anticipated. In re May, 574 F.2d 1082, 1090, 197 USPQ 601, 607 (CCPA 1978).

It would be expected that the colored emulsion polymer obtained would function as a binder since it is the same as and made in essentially the same manner as the claimed polymeric binder.

It has been held that where applicants claims a composition in terms of function, property of characteristic where said function is not explicitly shown by the reference and where the Examiner has explained why the function, property or characteristics is considered inherent in the prior art, it is appropriate for the Examiner

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to make a rejection under both the applicable sections of 35 USC 102 and 35 USC 103 such that the burden is placed upon applicant to provide clear evidence that the respective compositions do, in fact, differ as provided for under the guise of *In re Best*, 195 USPQ 430, 433(CCPA 1977); *In re Fitzgerald et al*, 205 USPQ 594.

When the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim it is appropriate for the examiner to make a rejection under both the applicable section of 35 USC 102 and 35 USC 103 such that the burden is placed upon applicant to provide clear and convincing factual evidence that the respective products do in fact differ in kind - *In re Brown*, 59 CCPA 1063, 173 USPQ 685 (1972); *In re Fessman*, 180 USPQ 324 (CCPA 1974) - and to come forward with evidence establishing unobvious differences between the claimed product and the prior art product. *In re Marosi* 218 USPQ 289.

Even if it turns out that the boat, somehow, has been missed by the Examiner, it would have been obvious to the skilled artisan to extrapolate, from JP'512, the instantly claimed polymer binder, ink composition, method of improving the print quality and use in the preparation of an ink composition as per such having been within the purview of the general disclosure of JP'512 with the understanding that the interchangeability of one well known reactive surfactant monomer for another is a matter of ordinary choice to the skilled artisan absent some evidence of unusual or unexpected results.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1-11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Idogawa et al(U.S. 5,965,634).

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Idogawa et al teach a water-based ink composition for an ink jet recording apparatus defined basically as containing a water-base dispersion liquid containing colored resin fine particles prepared via emulsion polymerizing a vinyl monomer in the presence of a hydrophobic dye followed by diluting with water or a water-soluble organic solvent so as to yield the water-based ink composition (Abstract). Idogawa et al specifically further teach a water-base ink composition comprising a water-base dispersion liquid containing colored resin fine particles prepared by emulsion polymerizing a vinyl monomer including one or more hydrophobic monomers such as alkyl (meth)acrylates and one or more hydrophilic monomers having functional groups such as a carboxyl group in an amount of less than 50 wt. %, based on the total amount of vinyl monomer in the presence of a hydrophobic dye and a polymerizable surfactant which comprises hydrophobic and hydrophilic functional groups wherein the hydrophilic group comprises within it a polymerizable group which is ethylenically unsaturated such as an ethylenically unsaturated amine cation which include Adekalia Soap NE-10, NE-20, NE-30, NE-40, SE-10N, Latemul S-180, S-180 A and S-120 A in an amount of 0.1 to 50 % by weight based on the total amount of vinyl monomer (col. 2, lines 24-67 & col. 3, lines 16-62). Specifically, Idogawa et al exemplify ink compositions comprising colored resin fine particles prepared by emulsion polymerizing a vinyl monomer mixture comprising methyl methacrylate (250 g), n-butyl methacrylate (200 g), methacrylic acid (50 g), oil soluble red dye (10 g), distilled water (250 g) and, as a polymerizable surfactant, (Adekalia Soap SE-10 N, 20g). See Run 1 and also Runs 2-4. Idogawa et al therefore anticipate the instantly claimed invention.

As to the introductory phrase "A method of improving the print quality of an ink composition" per claim 8 which is basically the result of combining a colorant and an emulsion polymer derived from monomer mixture of at least an ethylenically unsaturated carboxylic acid and a reactive surfactant monomer, while Idogawa et al, although disclosing the combination of a colorant and an emulsion polymer derived from a carboxylic acid and a reactive surfactant, does not show a specific recognition of that result, its discovery by applicant is merely tantamount to finding a new property for an old composition (In re Tomlinson, 363 F. 2d

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928, 150 USPQ 623 (CCPA 1966)). When the claim recites using an old composition or structure and the "use" is directed to a result or property of that composition or structure, then the claim is anticipated. In re May, 574 F.2d 1082, 1090, 197 USPQ 601, 607 (CCPA 1978).

It would be expected that the fine particles colored resin obtained would function as a binder since it is the same as and made in essentially the same manner as the claimed polymeric binder.

It has been held that where applicants claims a composition in terms of function, property of characteristic where said function is not explicitly shown by the reference and where the Examiner has explained why the function, property or characteristics is considered inherent in the prior art, it is appropriate for the Examiner to make a rejection under both the applicable sections of 35 USC 102 and 35 USC 103 such that the burden is placed upon applicant to provide clear evidence that the respective compositions do, in fact, differ as provided for under the guise of In re Best, 195 USPQ 430, 433(CCPA 1977); In re Fitzgerald et al, 205 USPQ 594.

When the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim it is appropriate for the examiner to make a rejection under both the applicable section of 35 USC 102 and 35 USC 103 such that the burden is placed upon applicant to provide clear and convincing factual evidence that the respective products do in fact differ in kind - In re Brown, 59 CCPA 1063, 173 USPQ 685 (1972); In re Fessman, 180 USPQ 324 (CCPA 1974) - and to come forward with evidence establishing unobvious differences between the claimed product and the prior art product. In re Marosi 218 USPQ 289.

Even if it turns out that the boat, somehow, has been missed by the Examiner, it would have been obvious to the skilled artisan to extrapolate, from Idogawa et al, the instantly claimed polymer binder, ink composition, method of improving the ink quality and use in the preparation of an ink composition as per such having been within the purview of the general disclosure of Idogawa et al with the understanding that

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the interchangeability of one well known reactive surfactant monomer for another is a matter of ordinary choice to the skilled artisan absent some evidence of unusual or unexpected results.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1-11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Phan et al(U.S. 5,969,032).

Phan et al teach a latex binder, for use in paints, wherein said latex binder comprises an emulsion polymerized product prepared, basically, via reacting a polymerizable surfactant having a terminal allyl amine moiety (0.1 to about 5 wt. %, based on total weight of ethylenically unsaturated monomer), at least one ethylenically unsaturated monomer such as an alkyl (meth)acrylate and an ionic monomer which includes ethylenically unsaturated C3-C8 monocarboxylic acids(from about 0.01 to about 10 wt. %, based on the total amount of ethylenically unsaturated monomer). See the Abstract, col. 2, lines 13-67, col. 3, lines 33-67, col. 4, lines 1-67, col. 5, lines 1-67. Phan et al further specifically teach that, in formulating a paint, the latex binder can be formulated with conventional adjuvants such as pigment(col. 7, lines 55-64). More specifically, Phan et al exemplify formulations containing at least a pigment and a latex binder prepared using a polymerizable surfactant having terminal allyl amine moieties and an ethylenically unsaturated carboxylic acid(col. 12, Runs 10 & 11). Phan et al therefore anticipate the instantly claimed invention. The use of the pigmented formulation of Phan et al comprising a latex binder and a pigment as an ink composition would be expected since the pigmented formulation of Phan et al is essentially the same as and made in essentially the same manner as the claimed ink composition.

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It has been held that where applicants claims a composition in terms of function, property of characteristic where said function is not explicitly shown by the reference and where the Examiner has explained why the function, property or characteristics is considered inherent in the prior art, it is appropriate for the Examiner to make a rejection under both the applicable sections of 35 USC 102 and 35 USC 103 such that the burden is placed upon applicant to provide clear evidence that the respective compositions do, in fact, differ as provided for under the guise of *In re Best*, 195 USPQ 430, 433(CCPA 1977); *In re Fitzgerald et al*, 205 USPQ 594.

The discovery of a new property or use of a previously known composition, even if unobvious from the prior art, cannot impart patentability to claims to a known composition. *In re Spada* 15 USPQ 2d 1655 (CAFC 1990).

"The absence of a disclosure relating to function does not defeat a finding of anticipation. It is well settled that the recitation of a new intended use for an old product does not make a claim to that old product". *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431(Fed Cir 1997).

In order to constitute anticipatory prior art, a reference must identically disclose the claimed compound, but no utility need be disclosed by the reference. *In re Schoenwald*, 964 F.2d 1122, 22 USPQ2d 1671 (Fed. Cir. 1992).

As to the introductory phrase " A method of improving the print quality of an ink composition" per claim 8 which is basically the result of combining a colorant and an emulsion polymer derived from monomer mixture of at least an ethylenically unsaturated carboxylic acid and a reactive surfactant monomer, while *Phan et al*, although disclosing the combination of a pigment and a latex binder comprising an emulsion polymer derived from a carboxylic acid and a reactive surfactant, does not show a specific recognition of that result, its discovery by applicant is merely tantamount to finding a new property for an old composition (*In re Tomlinson*, 363 F. 2d 928, 150 USPQ 623 (CCPA 1966)). When the claim recites using an old

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composition or structure and the "use" is directed to a result or property of that composition or structure, then the claim is anticipated. In re May, 574 F.2d 1082, 1090, 197 USPQ 601, 607 (CCPA 1978).

When the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim it is appropriate for the examiner to make a rejection under both the applicable section of 35 USC 102 and 35 USC 103 such that the burden is placed upon applicant to provide clear and convincing factual evidence that the respective products do in fact differ in kind - In re Brown, 59 CCPA 1063, 173 USPQ 685 (1972); In re Fessman, 180 USPQ 324 (CCPA 1974) - and to come forward with evidence establishing unobvious differences between the claimed product and the prior art product. In re Marosi 218 USPQ 289.

Even if it turns out that the boat, somehow, has been missed by the Examiner, it would have been obvious to the skilled artisan to extrapolate, from Phan et al, the instantly claimed polymer binder, ink composition, method of improving the ink quality and use in the preparation of an ink composition as per such having been within the purview of the general disclosure of Phan et al with the understanding that the interchangeability of one well known reactive surfactant monomer for another is a matter of ordinary choice to the skilled artisan absent some evidence of unusual or unexpected results.

Conclusion

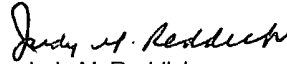
15. The additional prior art listed on the attached FORM PTO 892 is cited as of interest in teaching emulsion polymers derived from at least an ethylenically unsaturated carboxylic acid and a reactive surfactant monomer and considered merely cumulative to the prior art supra.


16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (571)272-1110. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Judy M. Reddick
Primary Examiner
Art Unit 1713

JMR 
09/16/04